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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,332	06/24/2003	Paul W. McLeod	020529-9020-01	2031

23585 7590 11/02/2004

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EXAMINER	
LEWIS, TISHA D	

ART UNIT	PAPER NUMBER
3681	

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/602,332	MCLEOD ET AL.
	Examiner	Art Unit
	TISHA D. LEWIS	3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-7 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-7 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 8/3/04 is/are: a)☑ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The following is a response to the amendment received on August 3, 2004, which has been entered.

Response to Amendment

Claims 1-7 are pending in the application.

-The drawings were received on August 3, 2004. These drawings are approved.

-The objection to the specification has been withdrawn due to applicant amending the current status of the parent application into the specification.

-The objection to claims 5 and 6 has been withdrawn due to applicant correcting typographical errors.

-The 112 2nd rejection of claim 4 has been withdrawn due to applicant providing antecedent basis of the "switch" limitation in the claim.

Response to Arguments

Applicant's arguments, see pages 6-9, filed August 3, 2004, with respect to the rejection(s)of claim(s) 1-7 under 102(a) and 103(a) and have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of applicant's amendment to claims 1, 3 and 7.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Prior Art drawing Figure 1 in view of Raver et al ('075). As to claim 1, The prior art drawing discloses a schematic for starting an engine with a first switch (118) by turning the first switch to a starting position (run/accessory position), energizing a second switch (148) using an electrical power source wherein the second switch is closed (run/accessory position connects battery terminal 126 to switch 132 which when closed connects to 148), energizing a starter generator (from switch 148 to node 155 and to coil 160), the first switch already being in a run position, and charging the electrical power source using the starter generator (voltage regulator 172 controlling current from generator to battery. The prior art drawing does not disclose a rectified circuit for blocking drainage of a power source when the starter generator is stalled.

Raver et al discloses a generator (10) having a voltage regulating system wherein a rectified circuit (122) coupling the generator and a battery (108) prevents battery discharge when the generator is shut down (column 7, line 75 to column 8, line 2 and column 9, lines 9-15).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the prior art drawing with a rectified circuit for blocking

drainage of a power source when a generator is stalled in view of Raver et al to prevent the power source from going dead/inoperative.

As to claim 2, the prior art drawing discloses the transmission in a neutral position when the switch is in a run/accessory position.

As to claims 3, 4 and 6 the prior art drawing discloses a schematic for controlling a starter generator using a first switch (132) by providing a circuit path from a battery (112) to the first switch (when the switch is closed), providing a switched circuit path from a shifter (gearshift switch 152) to the first switch (by closing switches 132 and 152), energizing a second switch (148) by moving the first switch to a predetermined position (closing switch 132), providing current from the battery through the second switch to the starter generator (from switch 148 to node 155 to coil 160 to generator 162), de-energizing the second switch by moving the first switch to a second predetermined position (opening switch 132), de-energizing the second switch by opening the switched circuit path (opening switches 132 and 152), but the prior art drawing does not disclose a rectified circuit path from the generator to the battery for blocking drainage when the generator is stalled.

Raver et al discloses a generator (10) having a voltage regulating system wherein a rectified circuit (122) coupling the generator and a battery (108) prevents battery discharge when the generator is shut down (column 7, line 75 to column 8, line 2 and column 9, lines 9-15).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the prior art drawing with a rectified circuit for blocking

drainage of a power source when a generator is stalled in view of Raver et al to prevent the power source from going dead/inoperative.

As to claim 7, the prior art drawing discloses a schematic for controlling a starter generator by providing a multiple position switch (118) for de-energizing a solenoid (142) and providing a shifter-control switch (152) for de-energizing the solenoid, but the drawing does not disclose a bypass rectifier for charging an electrical power source.

Raver et al discloses a generator (10) having a voltage regulating system wherein a rectified circuit (122) coupling the generator and a battery (108) prevents battery discharge when the generator is shut down (column 7, line 75 to column 8, line 2 and column 9, lines 9-15) and in combination with rectified circuit (90) charges the battery.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the prior art drawing with a rectified circuit for blocking drainage of a power source when a generator is stalled in view of Raver et al to prevent the power source from going dead/inoperative and charging the power source to maintain voltage/current flow.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Prior Art drawing Figure 1 in view of Biffi ('730). As to claim 1, The prior art drawing discloses a schematic for starting an engine with a first switch (118) by turning the first switch to a starting position (run/accessory position), energizing a second switch (148) using an electrical power source wherein the second switch is closed (run/accessory position connects battery terminal 126 to switch 132 which when closed connects to

148), energizing a starter generator (from switch 148 to node 155 and to coil 160), the first switch already being in a run position, and charging the electrical power source using the starter generator (voltage regulator 172 controlling current from generator to battery. The prior art drawing does not disclose a rectified circuit for blocking drainage of a power source when the starter generator is stalled.

Biffi discloses a generator (2) having a voltage regulating system wherein a rectified circuit (4) coupling the generator and a battery (1) prevents current supply from the battery when the generator is stalled (column 2, lines 7-16).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the prior art drawing with a rectified circuit for blocking drainage of a power source when a generator is stalled in view of Biffi to prevent the power source from going dead/inoperative.

As to claim 2, the prior art drawing discloses the transmission in a neutral position when the switch is in a run/accessory position.

As to claims 3-6, the prior art drawing discloses a schematic for controlling a starter generator using a first switch (132) by providing a circuit path from a battery (112) to the first switch (when the switch is closed), providing a switched circuit path from a shifter (gearshift switch 152) to the first switch (by closing switches 132 and 152), energizing a second switch (148) by moving the first switch to a predetermined position (closing switch 132), providing current from the battery through the second switch to the starter generator (from switch 148 to node 155 to coil 160 to generator 162), de-energizing the second switch by moving the first switch to a second predetermined

position (opening switch 132), de-energizing the second switch by opening the switched circuit path (opening switches 132 and 152), but the prior art drawing does not disclose a rectified circuit path from the generator to the battery for blocking drainage when the generator is stalled.

Biffi discloses a generator (2) having a voltage regulating system wherein a rectified circuit (4) coupling the generator and a battery (1) prevents current supply from the battery when the generator is stalled (column 2, lines 7-16) and switches 8 and 9 are parallel to the circuit.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the prior art drawing with a rectified circuit for blocking drainage of a power source when a generator is stalled in view of Biffi to prevent the power source from going dead/inoperative.

As to claim 7, the prior art drawing discloses a schematic for controlling a starter generator by providing a multiple position switch (118) for de-energizing a solenoid (142) and providing a shifter-control switch (152) for de-energizing the solenoid, but the drawing does not disclose a bypass rectifier for charging an electrical power source.

Biffi discloses a generator (2) having a voltage regulating system wherein a rectified circuit (4) coupling the generator and a battery (1) prevents current supply from the battery when the generator is stalled (column 2, lines 7-16) and provides current supply to the battery.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the prior art drawing with a rectified circuit for blocking

drainage of a power source when a generator is stalled in view of Biffi to prevent the power source from going dead/inoperative and charging the power source to maintain voltage/current flow.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is **(703) 872-9326 before final and 703-872-9327 after final**. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence **not** permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check **should not be** submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

> I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 000-0000) on _____ (Date)
>
> Typed or printed name of person signing this certificate:
>
> _____
>
> _____ (Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Smith ('608), Roosma et al ('582) and Schuh et al ('569) are cited as having generators systems using rectified circuits to block battery current.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TISHA D. LEWIS whose telephone number is 703-305-0921. The examiner can normally be reached on M-Thur 8 AM TO 3 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES A. MARMOR can be reached on 703-308-0830. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tdl
November 1, 2004

TISHA LEWIS
PRIMARY EXAMINER
AU 3681 10/1/04